In the claims:

Please amend claims 1, 3-5, 9, 11, 14-21, 29-35, 44, 45, and 69-74 as follows. A complete listing of all claims is compliance with the *Pre-OG* notice, "Amendments in a Revised Format Now Permitted" is provided in the "Complete Listing of Claims" below.

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1. (Currently Amended) A composition comprising a ~~substantially~~ purified thermostable Gux1 peptide, said Gux1 peptide comprising a catalytic domain classified in family glycoside hydrolase 48 (GH48), a carbohydrate binding domain (CBD) type III, and a carbohydrate binding domain (CBD) type II.

2. (Original) The composition of claim 1 wherein the Gux1 peptide is further defined as comprising a linker and a signal peptide.

3. (Currently Amended) The composition of claim 1 ~~or 2~~ wherein the GH48 catalytic domain of the Gux1 peptide is further defined as having a length of about 637 to about 643 amino acids.

4. (Currently Amended) The composition of claim 1~~, 2, or 3~~ wherein the carbohydrate binding domain (CBD) type III of the Gux1 peptide is further defined as having a length of about 150 to about 156 amino acids.

5. (Currently Amended) The composition of claim 1~~, 2, 3, or 4~~ wherein the carbohydrate binding domain (CBD) type II of the Gux1 peptide is further defined as having a length of about 95 amino acids to about 105 amino acids in length.

6. (Original) The composition of claim 3 wherein the GH48 catalytic domain is further defined as the sequence of SEQ ID NO: 5.

7. (Original) The composition of claim 4 wherein the carbohydrate binding domain (CBD) type III is further defined as the sequence of SEQ ID NO: 4.

8. (Original) The composition of claim 6 wherein the carbohydrate binding domain (CBD) type II is further defined as the sequence of SEQ ID NO:7.

9. (Currently Amended) The composition of claim 1 further defined as comprising, in combination, a sequence of SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 7.

10. (Original) A thermal tolerant Gux1 peptide having a sequence of SEQ ID NO: 1.

11. (Currently Amended) The Gux1 peptide of claim 10 further defined as having an amino acid sequence encoded by ~~of~~ SEQ ID NO: 2.

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~ having at least 90% sequence identity to ~~the nucleic acid sequence encoding an amino acid sequence of~~ SEQ ID NO: 5.

15. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~ having at least 80% sequence identity to ~~the nucleic acid sequence encoding an amino acid sequence of~~ SEQ ID NO: 5.

16. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~

having at least 70% sequence identity to ~~the nucleic acid sequence encoding an amino acid sequence of~~ SEQ ID NO: 5.

17. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~ having at least 90% sequence identity to ~~the nucleic acid sequence encoding the amino acid sequence of~~ SEQ ID NO: 7.

18. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~ having at least 90% sequence identity to ~~the nucleic acid sequence encoding the amino acid sequence of~~ SEQ ID NO: 4.

19. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~ having at least 90% sequence identity to ~~the nucleic acid sequence encoding the amino acid sequence of~~ SEQ ID NO: 6.

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20. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence ~~encoded by a nucleic acid sequence~~ having at least 90% sequence identity to ~~the nucleic acid sequence encoding the amino acid sequence of~~ SEQ ID NO: 1.

21. (Currently Amended) The composition of claim 1 wherein the Gux1 is further defined as comprising an amino acid sequence encoded by a nucleic acid sequence ~~having~~ that has at least 90% identity to the nucleic acid sequence of SEQ ID NO: 2.

22. (Original) The composition of claim 1 wherein the Gux1 is further defined as comprising a nucleic acid sequence encoding a heterologous protein in frame with the Gux1 peptide of claim 1.

23. (Original) The composition of claim 22 wherein the heterologous protein in frame with the Gux1 peptide of claim 1 is further defined as a peptide tag.

24. (Previously Amended) The composition of claim 23 wherein the peptide tag is 6-His (SEQ ID NO: 8), thioredoxin, hemaglutinin, GST, or OmpA signal sequence tag.

25. (Previously Amended) The composition of claim 22 wherein the heterologous protein is a substrate targeting moiety.

26. (Cancelled)

27. (Cancelled)

28. (Previously Amended) An isolated polypeptide molecule comprising:

a) a sequence of SEQ ID NO: 4;

b) a sequence of SEQ ID NO: 5;

c) a sequence of SEQ ID NO: 6;

d) a sequence of SEQ ID NO: 7;

e) a sequence of SEQ ID NO: 1; or

f) an amino acid sequence having at least 70% sequence identity with the amino acid sequence of a), b), c), d), or e).

29. (Currently Amended) The polypeptide molecule of claim 2~~8~~7, having at least 90% sequence identity with the amino acid sequence of a), b), c), d), or e).

30. (Currently Amended) A fusion protein comprising the polypeptide of claim 2~~8~~7 and a heterologous peptide.

31. (Currently Amended) The fusion protein of claim 30~~29~~, wherein the heterologous peptide is a substrate targeting moiety.

32. (Currently Amended) The fusion protein of claim 30~~29~~, wherein the heterologous peptide is a peptide tag.

33. (Currently Amended) The fusion protein of claim 32~~31~~, wherein the peptide tag is 6-His (SEQ ID NO: 8), thioredoxin, hemaglutinin, GST, or OmpA signal sequence tag.

34. (Currently Amended) The fusion protein of claim 30~~29~~, wherein the heterologous peptide is an agent that promotes polypeptide oligomerization.

35. (Currently Amended) The fusion protein of claim 34~~29~~, wherein the agent is a leucine zipper.

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Currently Amended) A composition comprising the polypeptide molecule of claim 29~~28~~ and a carrier.

45. (Currently Amended) A composition comprising the polypeptide molecule of claim 30~~29~~ and a carrier.

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

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65. (Cancelled)

66. (Cancelled)

67. (Cancelled)

68. (Cancelled)

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69. (Previously Added) The composition of claim 1 further comprising a carrier.

70. (Previously Added) The composition of claim 1 wherein the substantially purified thermostable Gux I peptide is further defined as comprising a heterologous peptide or protein.

71. (Currently Amended) The composition of claim 70~~69~~ wherein the heterologous peptide or protein comprises an immunoglobulin.

72. (Currently Amended) The composition of claim 70~~69~~ wherein the ~~heterologuos~~ heterologous peptide comprises a histidine tag.

73. (Currently Amended) The composition of claim 70~~69~~ wherein the heterologous peptide comprises a leucine zipper.

74. (Currently Amended) The composition of claim 70~~69~~ wherein the heterologous peptide comprises a fusion protein.